REMARKS

The Office Action mailed April 14 2006, for the present application has been reviewed. The present amendment makes changes to Claims 1-7. Considered together with the following remarks, these amendments are believed sufficient to place the application into condition for allowance. No new matter has been added to the application. Applicants express appreciation for thoughtful examination by the Examiner.

Claims 1-7 are pending in the application. Claims 1-6 have been rewritten, by virtue of the amendments to base claim 1, to better define the invention relative to the prior art and are submitted for reconsideration. Claim 7 has been indicated as containing allowable subject matter, which is noted with appreciation. Accordingly, Claim 7 has been rewritten in independent form, as required, including all of the limitations of the former base claim and any intervening claims. Claim 7 is thus believed to be in allowable form.

The subject invention provides a significant advance to the aerial ladder art, for example, of the type used in firefighting equipment. The invention provides a novel ladder cradle assembly that improves operator visibility, saves compartment space and provides a leverage angle of improved efficiency. Significantly, the claimed configuration enables the ladder to be deployed at the negative angle, below horizontal, as is needed in some circumstances.

As is apparent from the present specification, the assembly that supports the aerial ladder is provided with a rotatable turntable mounted for rotation on a vehicle about a vertical axis. Two pairs of upwardly extending support flanges are provided on

the turntable for pivotal connection thereto of the cradle assembly and associated hydraulic cylinders.

Unlike the prior art, the present invention utilizes a pivotal connection between the arms of the cradle and the bodies of the hydraulic cylinders. The preferred pivotal connection between the cradle arms and the cylinder body is formed by trunnion pins connected either directly to the exterior of the cylinder body or to an encircling band provided around the perimeter of the cylinder body. By connection of one end of the cradle arms to the taller support flanges, a pivotal connection of extendable, retractable piston rods to the shorter pair of flanges, together with the above-noted pivotal connection of the cylinder body to the cradle arms, a more compact configuration relative to the prior art is achieved. This, further, enables the lowering of the supported aerial ladder to a negative horizontal angle.

It is respectfully submitted that prior art does not show nor suggest the foregoing novel combination of elements. The invention, thus, is not anticipated nor suggested by the prior art references taken individually nor by any proposed combination thereof.

Referring specifically to the Wilkerson patent, there is shown a turret, number 22, which contains vertical plates 26. Instead of a cradle assembly to which the body of cylinder 34 could be pivotally attached, the cylinder simply works between the plates to which it is affixed and a point 36 on the boom itself. Thus, it is clear that the claimed arrangement of the components and elements is not disclosed and, in fact, that the cradle assembly as claimed is totally lacking. Wilkerson, thus, is unable to achieve the compact design and range of motion, especially to a negative angle below the horizontal, which is achieved by the present invention.

Referring next to the Smeal reference, a device very similar to that shown in Wilkerson is illustrated. In this case, a hydraulic cylinder 46 is attached at its lower end to a flange on a turntable 40. Extending the piston rod of cylinder 46 raises an aerial ladder 34 around a pivot point at its base. However, a cradle to which the cylinder body is pivotally attached is not shown. Thus, like Wilkerson, the Smeal reference is unable to attain the benefits provided by the present invention.

Claim 2 was rejected as unpatentable over Wilkerson in view of Hamill et al. Hamill is cited to show trunnions pins mounted on a cylinder. While Hamill does show trunnion pins in a totally different setting, there still is no teaching of attaching such trunnion pins to a cradle assembly which supports an aerial ladder as taught by the present invention. Thus, in addition to being combined with Wilkerson solely in hindsight, based on applicants' disclosure, there still is no teaching of use of the trunnion pins to pivotally connect a cylinder to a cradle arm and then using the extendable, retractable rod of the hydraulic cylinder assembly to connect to a flange on a turntable instead of merely connecting it to part of the aerial ladder as taught by Wilkerson. Thus, it is respectfully submitted that the proposed combination fails to teach the present invention, nor is there any suggestion in either reference that they should somehow be combined. Accordingly, is respectfully submitted that the claimed combination of elements is unobvious when considering the combination of Wilkerson and Hamill et al. Thus, reconsideration and allowance of Claim 2 as amended is respectfully requested.

Claims 2, 4 and 5 are also rejected as being unpatentable over Wilkerson in view of Haker et al. Haker et al is concerned with vibratory rollers on a material-conveying

apparatus and it also fails to suggest that the arrangement could be used to operate an aerial ladder apparatus mounted on firefighting equipment or the like. Thus, Haker et al is considered to simply show a teaching of trunnion arrangement supported on a band that encircles a cylinder body. Note that this proposed combination still lacks a configuration wherein a cylinder is pivotally mounted to cradle arms in the manner defined by the present claims. Thus, withdrawal of this rejection and allowance of all of the pending claims is earnestly solicited.

CONCLUSION

In light of the foregoing, Applicants respectfully submit that they have addressed each and every item presented by the Examiner in this Office Action. Favorable reconsideration of all of the claims as amended is respectfully solicited. Applicants submit that the present application, with amended Claims 1-7, is in a condition for allowance and respectfully request such allowance.

In the event any further matters requiring attention are noted by Examiner or in the event that prosecution of this application can otherwise be advanced thereby, a telephone call to Applicants' undersigned representative at the number shown below is invited.

Respectfully submitted,

Date: 7-12-06

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I hereby certify that this correspondence is being facsimile transmitted to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450/517-273-8300.

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